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NEW NORTH AMERICAN SIPHONAPTERA.

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There are described in this short paper two new genera, two new subgenera, and two new species of North American fleas. Illustrations for these new siphonapterons will appear in a much more extended paper now being completed, in collaboration with Irving Fox, which treats of all the North American genera and species of fleas.

PARATYPHLOCERAS, new genus.

Gena broad, truncate apically; with an oblique comb of six, pointed spines on truncate end. Eyes absent. Frontal tubercle small, inconspicuous. Labial palpus with eight segments, extending slightly beyond tip of coxa. Upper sclerite of metepisternum separated from metanotum by an inner horizontal ridge. Coxa III without a row or patch of spinelets on inside. Posterior borders of tibiae with stout bristles in groups of two or three. Plantar bristles on segment V of tarsus II, five; on segment V of tarsus III, six; first pair of plantar bristles not displaced. Abdominal tergal plate VII of female produced into a short process between two groups of antepygidial bristles.

Type species.—Paratyphloceras oregonensis, new species.

Remarks.—This new genus is nearest *Typhloceras* Wagner, from which it differs in having the labial palpus composed of eight segments instead of five and in having six spines in the genal comb instead of four. The large type species of this new genus is somewhat suggestive of members of the subfamily Hystrichopsyllinae, but since it possesses a frontal tubercle and less than seven spines in the genal comb, it and its genus are referred to the subfamily Ctenophthalminae.

Paratyphloceras oregonensis, new species.

Front somewhat reduced but forming more than one-half of anterior margin of head. Gena enlarged, longest in a subvertical direction. Two setae in ocular row; ocular seta extending for about one-third its length beyond tip of antenna. Setae in head comb increasing in width and length from I to IV; V subequal with IV; VI smaller than V. Maxillary palpus

reaching about to apex of coxa I; maxillary lobe long, daggerlike, reaching to middle of segment III of maxillary palpus. Pronotal comb with nine spines on each side. Mesonotum about equal in length and width to pronotum. Metanotum shorter but broader than mesonotum. Fused upper sclerite of metepisternum subtriangular, with a large, posterior, marginal bristle, a large, ventral, submarginal bristle, and two much smaller discal setae. Abdomen large, somewhat swollen, and clothed with long setae dorsally and ventrally, but not laterally. Abdominal tergum I with a transverse row of eight apical spines; tergum II with a transverse row of eight apical spines; tergum III with six apical spines; tergum IV with two apical spines; other abdominal terga without apical spines. Antepygidial bristles long, subequal; three on each side. Stylet long, slender, curved; with a large, dorsal, subterminal bristle and a much smaller terminal seta and an outer, subterminal seta. Receptaculum seminis with medium-sized, subspherical head and a short, strongly curved, truncate tail.

Length of female, 5.1 mm.; *greatest depth of abdomen*, 1.7 mm.

Type host.—"Mink."

Type locality.—Mercer Lake, Oregon.

Holotype.—U. S. National Museum No. 54,000.

Remarks.—Described from one female taken March 12, 1933, by H. H. Stage (U. S. Bur. Ent. Bish. No. 19156).

APTILOPSYLLA, new genus.

Head longer than high, not semicircular in outline. Frontal tubercle present, situated very near fronto-genal angle of head. Maxilla acuminate apically. Eyes vestigial. Antennal segment II enlarged laterally. Postantennal region of head without dorsal incrassation. Prothorax not reduced; setae of pronotum not arranged in a transverse row. Mesepisternum separated from mesepimeron by internal vertical ridge. Metepimeron without comb. External dorsal setae of tibia not forming comb. Abdomen without a true or false comb, and with few apical spines. Abdominal terga II to VII each with a dorsal incrassation. Antepygidial bristles present, one on each side of abdomen.

Type species.—*Aptilopsylla carlsbadensis*, new species.

Remarks.—*Aptilopsylla* is most nearly related to *Ptilopsylla* Jordan and Rothschild, from which genus it is differentiated by having the frontal tubercle situated very near the fronto-genal angle, and the mesepisternum separated from the mesepimeron by an internal vertical ridge.

Aptilopsylla carlsbadensis, new species.

Front very broadly rounded, with two pairs of dermal pits. Frontal tubercle well developed, angulate distally, situated about its width from fronto-genal angle. Ocular seta situated on margin of antennal groove above degenerate eye. Gena produced backward into a pigmented process. Labial palpus five segmented, not reaching to middle of coxa I. Pronotum with about twelve setae on each side in addition to a very large bristle situated near lower margin. Pronotal comb with twenty-four, rather slender, sharply-pointed spines. Mesonotum longer than either pronotum or metanotum. Mesepimeron without distinct posterodorsal margin, thus

appearing as if anchylosed with mesonotum. Metanotum longer than upper sclerite of metepisternum, from which it is separated by an internal ridge. It bears on posterior margin a single pair of apical spines. Coxa I with a small patch of spinelets on curved surface of proximal end, and a large posterior marginal bristle somewhat distal to middle of margin. Abdomen clothed with setae below, and above, down to slightly beyond the line of spiracles. Antepygidial bristle about one and one-half times as long as pygidium. Stylet reduced to a low, inconspicuous tubercle, bearing a large terminal seta and two or three microsetae. Receptaculum seminis with subspherical head and a strongly curved tail about one and one-half times length of head.

Length of female, 2.2 mm.; *greatest depth of abdomen*, 0.7 mm.

Type host.—Unknown. Type labeled "On bat guano."

Type locality.—Carlsbad, New Mexico.

Holotype.—U. S. National Museum No. 54,001.

Remarks.—Described from one female taken June 14, 1938, by K. Dearolf.

Euhoplopsyllus, new subgenus.

With the characters of *Hoplopsyllus* Baker and in addition: Club of antenna not capitate, segments separated anteriorly by grooves. Antennal groove partly or entirely open in male, closed in female. Clasper of male with broad, setigerous, anterior process and slender, fingerlike, posterior process, armed at tip with a stout, pigmented, spinelike seta; movable finger almost straight.

Type species.—Hoplopsyllus affinis Baker.

Remarks.—The genus *Hoplopsyllus* Baker was based on *Pulex anomalus* Baker. This species has been recognized for some years as one apart from its congeners. Its male genital armature is of a type very distinctive, hence a new subgenus is proposed for the other species, which are *Hoplopsyllus affinis* Baker, *H. exoticus* Jordan and Rothschild, and *H. glacialis* (Taschenberg). The last-mentioned species has three varieties, *glacialis*, type variety, *lynx* (Baker), and *foxi* Ewing. Two described species, *Hoplopsyllus powersi* C. Fox and *H. minutus* C. Fox, are regarded as synonyms of the variety *foxi* Ewing.

Acediopsylla, new subgenus.

Mandibles much enlarged. Genal comb of five to seven spines, each of which is rounded apically. Sternum VIII of male large, with a deep, broad, seta-margined, posteroventral depression and a pair of expanded posterodorsal lobes. Sternum IX of male with anterior whiplike apophysis, a pair of vertical internal lobes, and a pair of conspicuous, setigerous, posterior processes.

Type species.—Ctenocephalus inaequalis Baker.

Remarks.—This subgenus of *Cediopsylla* Jordan is based chiefly on the characters of the genital armature of the male which are very radically different from those of the type species of *Cediopsylla, C. simplex* (Baker). It includes two varieties of the type species, the type variety, and *A. inaequalis interrupta* (Jordan).